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TRANSPORTATION FACILITIES AND STREET RAILWAY TRAFFIC IN LONDON

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The name "London" is applied indiscriminately to various local government, judicial, and geographical areas. There is the "Administrative County of London," centrally governed by the elective London County Council, which controls certain matters of local government as sewerage, new buildings, education, etc. Comprised in the "Administrative County" is the City of London, governed by the Corporation of London, whose district is practically independent of the County Council except in a few matters. The rest of the "Administrative County," excluding the city, called "the County of London," is divided into 28 Metropolitan Boroughs, each with an elective borough council, which are the local government authorities for all purposes, *e. g.*, street maintenance, scavenging, lighting, etc., not appertaining to the County Council, and which in many matters are controlled by the County Council.

The next greater area is "Greater London"—the district under the jurisdiction of the Metropolitan Police (a state force), comprising roughly every parish, the whole of which is within fifteen miles, and any part of which is within twelve miles, of Charing Cross, excluding the City of London, which has its own municipal police force. "Greater London" includes the Administrative County of London, excluding the City, and stretches beyond into five adjoining administrative counties, *viz.*: Middlesex, Surrey, Kent, Essex, Hertford, each county with a central county council and entirely subdivided into various subsidiary and practically independent units of local government, boroughs, urban districts, rural districts—each with an elective authority. The portion of "Greater London" lying beyond the Administrative County of London situated in the other counties is geographically known as "Extra" or "Outer

London." For transportation purposes "Greater London" should be the geographical area for consideration. Such is the decision of the Royal Commission on London Traffic, which has just published eight large volumes of original statistics and investigations on every phase of traffic on the railroads, street railways, and streets in "Greater London."

The Transportation Authorities.

London depends for locomotion on trunk-line railroads and their suburban sections, on underground railroads, "subway" and "tube," on street railways and on omnibuses and cabs.

Railroads, surface and underground, can only be constructed under a private and special Act of Parliament. The consent of the local authorities does not enter into the matter. They can oppose and present their case before the committee in the House of Commons, and also before the committee in the House of Lords, to which the bill is referred. Street railways are authorized by virtue of (1) a special and private Act; (2) a Provisional Order granted for the purpose by the (State) Board of Trade, and afterwards confirmed by Parliament; but no Street Railway Act or Provisional Order is allowed to proceed without the consent of the local authorities, who have thus a power of "veto" in addition to rights of opposition in Parliament. Street railways, or local railroads, can also be constructed outside the Administrative County of London under "Light Railway Orders" granted by the (State) Light Railway Commission, a procedure of recent growth over which local authorities have no "veto."

As a result, all the railroads of "Greater London" are in private hands. When constructed under an Act or Provisional Order street railways are purchasable by the local authorities at a date specified in such Act or Order. This is not the case when constructed under a Light Railway Order. In the Administrative County of London, the London County Council has accordingly purchased, or arranged to purchase and operate all street railways, and shortly none will be in private hands. In "Extra London" the local authorities have similar powers, but have not yet cared, or been in a position, to exercise them. All local authorities, with few exceptions, have, along with private promoters, power, which they

exercise, to promote Bills or Orders for the construction of new street railways, save that in the Administrative County of London, the London County Council alone, with the private promoter, has the power, subject to the other local authorities' "veto." Thus the street railways of "Greater London" are partly municipal, partly municipally owned and privately operated, and partly privately owned and operated. Omnibuses are all in private hands, and may be put on any route without special authority, subject to the licensing of the "bus," the driver, and conductor, by the police.

The following are the chief statistics bearing on traffic in Greater London, as contained in the report of the Royal Commission:

Statistics of Area Population and Traffic.

AREA.	Acres of land and inland water.
The City of London	673
The County of London.....	74,144
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The Administrative County of London.....	74,817
"Extra London"	368,602
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"Greater London"	443,419

RESIDENT NIGHT POPULATION.

Year of Census.	Administrative County of London.		"Extra" London		Total "Greater London."	
	Population.	Increase per cent.	Population.	Increase per cent.	Population.	Increase per cent.
1801	959,310		155,334		1,114,644	
1811	1,139,355	18.8	184,544	18.8	1,323,899	18.8
1851	2,303,341	21.2	317,594	11.0	2,680,935	
1861	2,808,494	18.8	414,226	30.4	3,222,720	20.2
1891	4,228,317	10.4	1,405,489	50.1	5,633,806	
1901	4,536,541	7.3	2,044,861	45.5	6,581,402	16.8

The feature of the population growth is the rapid rate of increase in "Extra London," partly natural, mostly migratory, occasioning an immense demand for suburban traveling facilities. In the central districts of London population is stationary or decreasing. For instance in the City of London:

	City of London. Population.
1861	112,063
1871	74,897
1881	50,652
1891	37,694
1901	26,923

although 359,940 persons spend the day there, and 1,250,000 persons and 100,000 vehicles enter and leave the city daily.

The following figures show the annual amount of intra-urban travel:

	All Local Railroads.	Street Railways.	Two Chief Omnibus Companies.	Total.	Rides Per Capita.
1880	133,877,485	64,817,361	57,722,231	256,417,077	54.8
1890	167,299,200	191,041,904	148,531,099	506,872,203	91.5
1900	214,537,095	340,203,066	264,503,868	819,244,029	126.3
1902	273,767,648	358,119,754	279,466,557	911,353,959	136.0

The only railroads included are the lines owned or used by the purely local East London, Metropolitan, Metropolitan District, North London, Central London, City and South London, and Waterloo and City Companies, for which lines statistics are available. Trunk railroads and their suburban sections are omitted, and also the smaller omnibus companies. Last year, with the co-operation of the transportation authorities, a special count was made for the Royal Commission of the travel on all local means of conveyance,—including the recently constructed Whitechapel and Bow, Great Northern and City Roads,—excluding trunk railroads. The figures are:

Railroads (local, not trunk).....	301,000,000
Street Railways	405,000,000
Omnibuses	458,000,000
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	1,164,000,000

These figures on an assumed present-existing population of 6,850,000 in "Greater London," represent 170 rides per capita per annum.

In addition, certain of the trunk line companies mentioned above have trackage rights over sections of other companies' lines.

There are also the following connecting lines operated jointly by the various companies having terminals in London: East London Joint; Hammersmith and City Joint; London and India Docks; Metropolitan—Widened Lines; North and South Western Junction; Tottenham and Hampstead; Tottenham and Forest Gate; Whitechapel and Bow.

Electric Railroads.

In addition to the above trunk roads there are the following local railroads existing and in course of construction:

EXISTING.

	Mileage and by Passenger Trains.		Passengers Carried 1904.
	Route.	Single Track.	
(A) Electric subway and in open			
Metropolitan	8½	17
Metropolitan District	25	50	51,000,000
Metropolitan District joint lines Metropolitan and Metropolitan District	2	4	1,250,000
(B) Electric "Tube"			
Central London	6	12	45,000,000
City & South London	6	12	17,500,000
Great Northern & City	3½	7	8,000,000
Waterloo & City	1½	3	4,500,000

IN COURSE OF CONSTRUCTION.

(B) Electric "Tube."	Length Miles.
Baker Street and Waterloo	5½
Charing Cross, Euston and Hampstead	8
Great Northern, Piccadilly and Brompton	8¼
Metropolitan District Extension (Hammersmith to Glidden Road)	½

AUTHORIZED, BUT NOT YET BUILT.

(B) Great Northern, Piccadilly and Brompton (Holborn to Strand)....	¼
(B) Metropolitan District (Earl's Court to Mansion House).....	4¾
(B) City and Brixton (Kennington Park to Brixton)	1½
(A) Edgware and Hampstead	4½
(B) North West London	4
(A and B) North East London	10
(A) Watford and Edgware	6

Omnibuses.

There are 159 omnibus routes or separate lines of omnibuses in the Administrative County of London, and 41 routes in "Extra London," and of the former 115 pass through the central area. The routes in the Administrative County range in length from 8.8 miles to .7 miles, and aggregate 757 miles, using a total street length of 242 miles.

The following is an approximate division of the 242 miles of streets according to the amount of omnibus traffic:

Number of omnibuses per hour in both directions (during hours of full service).	Length of streets in the administrative county divided according to amount of omnibus traffic Miles.
480 and upwards (intervals of one-fourth of a minute or less each way)	.57
480 to 360 (intervals of one-fourth to one-third of a minute each way) .	4.43
360 to 240 (intervals of one-third to one-half of a minute each way) ..	6.47
240 to 120 (intervals from one-half of a minute to one minute each way)	14.64
Less than 120 (intervals of over one minute each way).....	215.89
	<hr/> 242.0

In the principal streets the omnibus traffic forms a very considerable part of the total vehicular traffic. In the Strand, out of a total of 11,000 vehicles per day, 36 per cent. are omnibuses; in Holborn, out of 9,400 31 per cent. are omnibuses, and at Piccadilly, out of 15,000, 30 per cent. are omnibuses.